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# IMPLEMENTATION PLAN REVIEW FOR CALIFORNIA AS REQUIRED BY THE ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT

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16. ABSTRACT

Section IV of the Energy Supply and Environmental Coordination Act of 1974, (ESECA) requires EPA to review each State Implementation Plan (SIP) to determine if revisions can be made to control regulations for stationary fuel combustion sources without interfering with the attainment and maintenance of the national ambient air quality standards. This document, which is also required by Section IV of ESECA, is EPA's report to the State indicating where regulations might be revised.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Air Pollution<br>State Implementation Plans | | |

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

Honorable Edmond G. Brown, Jr.
Governor of the State of California
Sacramento CA 95814

Dear Governor Brown:

This letter is a report which the Environmental Protection Agency has developed for the State under provisions of the Energy Supply and Environmental Coordination Act (ESECA) of 1974. As you know, the Clean Air Act of 1970 required each State to submit to the EPA Administrator a plan for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS) within its boundaries. You may also be aware that Section IV of the Energy Supply and Environmental Coordination Act requires EPA to review each State Implementation Plan (SIP) with respect to its procedures for the control of fuel-burning stationary sources and to determine if revisions of fuel combustion emission regulations can be made without interfering with the attainment and maintenance of any National Ambient Air Quality Standard.

The intent of ESECA is that where it can be determined that emissions from certain fuel burning sources can be increased and still attain and maintain NAAQS, the State Implementation Plans be revised in the interest of conserving low sulfur fuels or converting sources which burn oil or natural gas to coal. Such fuel resource reallocations would be consistent with both environmental and national energy needs.

ESECA provides that EPA will report to each State as to whether its plan may be revised. Though ESECA does not require States to change any existing plan, the States may initiate implementation plan revisions in accordance with Section 110 of the Clean Air Act of 1970.

The Implementation Plan Review for California required by ESECA comes at a time when the State is undertaking a major revision of its current plan. The State may wish to consider some of the review findings when reformulating the SIP. A cursory analysis of the State of California's potential for

revising fuel combustion emission regulations has been accomplished and is summarized for your convenience in Table 2. Although the ESECA review is required to address the attainment and maintenance of all NAAQS, the California review has focused on total suspended particulate matter (TSP), nitrogen oxides ($NO_x$) and sulfur dioxide ($SO_2$) emissions. This is because stationary fuel combustion sources generally constitute a major source of $SO_2$ emissions and are often a large source of TSP and $NO_x$ emissions.

The data used in preparing the review are the most current available to EPA. However, this Agency believes that the State has more up-to-date information for revising a plan. Also, the resources which EPA has had to prepare this review have not permitted the consideration of growth, economics and control strategy tradeoffs. California is encouraged to verify and expand the enclosed findings. Should the State wish to revise its plan along the lines of Section IV of ESECA, we suggest that control strategies be selected which place emissions from fuel combustion sources into perspective with all sources of emissions. Furthermore, we suggest that the State consider the overall impact which the relaxation of overly restrictive emission regulations might have on future control programs. This may include air quality maintenance, prevention of significant deterioration, increased TSP, $NO_x$, and hydrocarbon emissions which occur in fuel switching, and other potential air pollution problems such as sulfates.

California has avoided two of the most common causes of overly restrictive emission regulations in the State Implementation Plans throughout the country. These are: (1) the use of the example region approach in developing Statewide air quality control strategies; and (2) and use of "hot spots" in part of an Air Quality Control Region (AQCR) as the basis for controlling the entire region. It is, however, the prerogative of the State to surpass any NAAQS, and California standards are generally more stringent, as summarized in Table 1.

The major findings for California are as follows:

> The review finds there to be little potential for the revision of particulate fuel combustion emission regulations in any of California's Air Quality Control Regions. High TSP levels are jeopardizing the attainment of NAAQS in seven AQCR's: Metropolitan Los Angeles, North Central Coast, Sacramento Valley, San Diego, San Francisco Bay Area, San Joaquin Valley and the Southeast Desert. Based on limited 1973 air quality data, this review finds no violations of the NAAQS for TSP in the following AQCR's: Great Basin Valley, Northeast Plateau, North Coast and South Central Coast.

The Metropolitan Los Angeles AQCR and the San Francisco Bay Area AQCR show little potential for the revision of $SO_2$ emission regulations since they have been designated as proposed Air Quality Maintenance Areas. AQMA designations indicate that these highly urbanized regions have a potential for violating the $SO_2$ NAAQS. The only AQCR in California which shows even the slightest potential for the revision of $SO_2$ fuel combustion emission regulations is San Diego. It must be cautioned, however that since the major sources of $SO_2$ fuel combustion emissions in the San Diego AQCR are power plants, changes to any current regulation might greatly affect the local air quality. Potential revision should be undertaken only after monitoring and/or modeling in the vicinity of the plants is completed. Limited 1973 air quality data shows no violations of the NAAQS for $SO_2$ in the remaining AQCR's.

The Metropolitan Los Angeles AQCR is currently experiencing violations of the $NO_2$ air quality standard and therefore shows little potential for the revision of $NO_x$ fuel combustion emission regulations. For the remaining ten AQCR's, insufficient data are available to make a determination of the restrictiveness of regulations with respect to $NO_x$.

I hope the State will consider these matters in its current SIP revision effort. If we can be of any assistance to your staff in this regard, we would be pleased to do so.

Sincerely,

Paul De Falco, Jr.
Regional Administrator

Attachments

TABLE 1. CALIFORNIA AMBIENT AIR QUALITY STANDARDS

ALL CONCENTRATIONS IN $\mu g/m^3$

| | | TOTAL SUSPENDED PARTICULATES | | SULFUR OXIDES | | | | NITROGEN DIOXIDE |
|---|---|---|---|---|---|---|---|---|
| | | ANNUAL | 24 HOUR | ANNUAL | 24 HOUR | 3 HOUR | 1 HOUR | ANNUAL |
| Federal | Primary | 75 (G) | 260[a] | 80 (A) | 365[a] | - | - | 100 (A) |
| | Secondary | 60[c] (G) | 150[a] | - | - | 1300[a] | - | 100 (A) |
| State | | 60 (G) | 100[a] | - | 260[b] | - | 1300 | - |

(A) = Arithmetic mean

(G) = Geometric mean

[a] Not to be exceeded more than once per year.

[b] In October, 1974, the State revised its 24 hour standard from 105 $\mu g/m^3$ to 260 $\mu g/m^3$. There will be a hearing in April 1975 to determine whether this revision should be modified.

[c] This is a guideline standard only (as of September 14, 1973).

TABLE 2. STATE IMPLEMENTATION PLAN REVIEW (SUMMARY)

| "INDICATORS" | GREAT BASIN VALLEY AQCR | | METRO L. A. AQCR | | NORTH CENTRAL COAST AQCR | | NORTH COAST AQCR | | NORTHEAST PLATEAU AQCR | | SACRAMENTO VALLEY AQCR | | SAN DIEGO AQCR | | SAN FRANCISCO BAY AREA AQCR | | SAN JOAQUIN VALLEY AQCR | | SOUTH CENTRAL COAST AQCR | | SOUTHEAST DESERT AQCR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ | TSP | $SO_2$ |
| • Are there any proposed Air Quality Maintenance Areas? | NO | NO | YES | YES | NO | NO | NO | NO | NO | NO | NO | NO | YES | NO | YES | YES | NO | NO | NO | NO | NO | NO |
| • Are there indications of a sufficient number of monitoring sites within a region? | NO | NO | YES | YES | YES | NO | YES | NO | YES | NO | YES | YES | YES | YES | YES | YES | YES | YES | NO | NO | YES | NO |
| • Based on reported (1973) Air Quality Data, does air quality meet NAAQS? | NDA | NDA | NO | YES | NO | NDA | YES | NDA | YES | NDA | NO | YES | NO | YES | NO | YES | NO | YES | YES | NDA | NO | YES |
| • Are the total emissions from stationary fuel combustion sources lower than those of other sources? | YES | YES | YES | YES | YES | NO | NO | NO | YES | NO | YES | NO | YES | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| • Based on the above indicators, what is the potential for revising fuel combustion source emission limiting regulations? | Marginal | Marginal | Poor | Poor | Poor | Marginal | Marginal | Marginal | Marginal | Marginal | Poor | Marginal | Poor | Marginal | Poor | Poor | Poor | Marginal | Marginal | Marginal | Poor | Marginal |

TABLE 2. STATE IMPLEMENTATION PLAN REVIEW (CONTINUED)

[1]Data is from SAROAD data bank in EPA, Research Triangle Park, North Carolina. By violations, it is meant the violation of any primary or secondary annual or 24-hour NAAQS.

[2]The ratings in this table were determined by assessing the following criteria:

| Good | Poor | Marginal |
|---|---|---|
| 1) Adequate number of air quality monitoring sites | 1) Violation of NAAQS | 1) Limited air quality data |
| 2) No NAAQS violations | 2) Proposed AQMA | 2) Inconsistent "indicators" |
| 3) No proposed AQMA's | | |

For an AQCR to be rated as a good candidate, all the criteria listed under "Good" would have to be satisfied. The overriding factor in rating an AQCR as a poor candidate is a violation of either the primary or secondary National Ambient Air Quality Standards during 1973. However, if the other consideration listed under "Poor" exists, the AQCR would still receive that rating. The predominant reason for a marginal rating is a lack of sufficient air quality data.

NDA = No Data Available

Note : This table summarizes only TSP and $SO_2$ status.